

PIRU FIRE # 1514  
FIRE REHABILITATION PLAN  
HOPPER MOUNTAIN NATIONAL WILDLIFE REFUGE

I. Background

A. Area Description

Hopper Mountain National Wildlife Refuge (the Refuge) is located six air miles north of Fillmore, CA. Total acres of the Refuge numbers 2,471 and is composed of 1,050 acres of chaparral, 900 acres of annual grassland critical California Condor foraging habitat, 350 acres of oak and walnut woodland, 169 acres of riparian habitat, and 3 acres of fresh water marsh habitat. A fire in August of 1997 burned throughout the entire Refuge, fortunately, sparing the buildings.

Soil types found on the Refuge are described as Callaguas shaly loam and Los Osos clay loam which is associated with slopes of 15 to 30 and 30 to 50 percent, respectively. The Callaguas soil series is described as well-drained shaly loams less than 20 inches deep over sandstone or shale. Los Osos clay loam is a soil described as well-drained clay loams that have a clay subsoil and tend to be 22 to 48 inches deep over sandstone or shale. Los Osos clay loam have developed in upland areas and have slopes of 9 to 50 percent.

B. Fire and Presuppression Activity

On 18 October 1998, a wildfire called the Piru Incident, began in the town of Piru, CA located 5 miles east of Fillmore. During the subsequent week, high winds rapidly pushed the fire west towards Fillmore, then north towards the Refuge. On 21 October 1998, 200+ acres of the extreme south-west portion of the Refuge burned which in turn caused concern for those planning the suppression of this conflagration. When the winds began pushing the fire north, there was a potential to lose any gained containment if the fire moved into the Los Padres National Forest, Sespe Condor Sanctuary, at which point unpredictable and disastrous fire behavior would be imminent.

With the Refuge's approval, the presuppression plan of the Pim Incident on 22 October 98, included the creation of several dozer lines within Refuge boundaries coupled with retardant drops. Dozer line # 1 (see map 3) begins at the north-west boundary of the Refuge and extends about 3,000 feet in a southerly direction connecting with dozer line #2, about 1,200 feet, and begins at the main ranch road ending at the "Pinnacles". Dozer line #3 begins from dozer line #2 and extends 750 feet to the south ending at the old ranch road. Dozer line #4, about 700 feet, intersects lines #2 and #1 then extends to dozer line #3. The old ranch road was re-opened and used as a fire break. All dozer line and road re-dozing was created in anticipation of the fire moving farther north potentially into the Los Padres National Forest.

On 22 October 98, a backfiring operation was initiated, from these dozer lines, resulting in an additional 800 charred acres of the Refuge. Of the acres burned, 350 were chaparral with 850 acres consisting of annual grassland and of riparian habitat. Total acres of the Refuge burned

1,200+.

### C. Resource Uses

While Hopper Mountain National Wildlife Refuge is closed to the public, it does provide residency to many species of wildlife. The Refuge plays host to rodents, herptiles, as well as migratory and non-migratory birds. Also located on the Refuge are significant stands of California walnut (*Juglans californica*) and small isolated populations of the Fort Tejon woolly sunflower (*Eriophyllum lanatum* var. *hallii*), a listed endangered vascular plant in California. The Refuge also provides important habitat for many mammals such as rodents and carnivores.

Also located on the Refuge are a ranch house and trailers used as housing for refuge employees and as old barn used primarily for storage. When condors are present at the Refuge, the ranch house facility provides a base of operations for personnel enlisted to monitor and care for the condors.

## II. Assessment

A. Though there was no direct damage to physical property by the fire, dozer lines created during presuppression activity generated new potential problems for erosion especially to recent road improvement projects on the Refuge.

B. The regrowth of native or nonnative grasses has and will continue to be a management issue on the Refuge. In the past, grasses on the Refuge were constantly reduced by cattle, lessening fuel build-up and offering a simple means of pre-suppression. At this time, pre-suppression work is undertaken by one individual. And as recent long term forecasts predict, California is preparing to enter the climate phenomena of La Nina. With the recent long term forecasts comes the added prediction of Southern California witnessing a fire season in 1999 beginning as early as March.

C. In the southern portion of the Refuge, a small amount of fencing had been lost due to fire activities. This fencing was not in pristine condition before the fire but replacement of the fencing would be ideal as it kept a neighboring landowners cattle from wandering onto the Refuge.

## III. Rehabilitation Needs and Objectives

### A. Alternative 1

In June of 1998, the Refuge underwent a road re-grading project. The road work will commence June 1999 due to military priorities for the Navy battalion enlisted to complete the project. If the upcoming

winter is wet, the road work may be degraded and/or erode the completed work, particularly where dozer line is found (see attached photos). We recommend additional erosion reduction work be implemented before any serious problems arise. Most erosion reduction can be done through manually scattering grass seed (*Bromus carinatus*) on dozer lines. Some areas may require

sandbagging.

This past year the Refuge once again found itself in harms way of fire. While fire is an important component of Southern California and it's various habitats, frequent fire can and does considerable damage to structures and property. The Hopper Incident of 1997 was beneficial in that it cleansed areas which had not burned in many years yet was quite disastrous in that much Refuge property was damaged or destroyed. The Refuge was fortunate that the fuels of 1998 were light as opposed to the heavy fuels which accelerated the 1997 Hopper Fire. Had the dozer line not been created during pre-suppression activities of the Piru Incident, the Refuge could have found itself once again suffering substantial loss. We recommend the hiring of personnel to assist with fuels reduction work for several months during a minimum of two fire seasons to facilitate and implement an aggressive fuels reduction campaign, one which would allow a future limited staff to maintain.

There is one major private landowner to the south of the Refuge which raise range cattle. Due to the re-opening of the old ranch road, cattle once again have limited access to the Refuge. We recommend the strategic placement of a small amount of fencing to insure cattle do not reach the Refuge.

#### Alternative 2: No Action

No repairing of fencing could result in cattle creating adverse environmental impacts on the streams and springs found within Refuge boundaries.

By not hiring additional personnel on the Refuge to slow the build-up of fuels, the Refuge may soon, given the La Nina weather phenomena, finding itself in harms way of a large fire resulting in property damage as witnessed in the Hopper Incident of 1997.

The road work project which began in 1998, is to continue June 1999. If this upcoming winter season is accompanied by heavy rains, road improvements completed in 1998 risk deterioration.

B. We recommend that alternative I, the active rehabilitation of the Refuge be implemented.

#### IV. Environmental Considerations:

##### A. Alternative I

The recommended rehabilitation alternative will provide any additional emergency funding to prevent the recent road work from being undermined by erosion.

The Refuge staff is minimal and could benefit from the hiring of one seasonal employee to begin and maintain an aggressive fuels reduction plan. Without an aggressive approach and the hiring of extra personnel, it is feared another wildland fire could result in a great loss of property.

The re-opening of the old ranch road has increased the chance of cattle entering the Refuge.

Cattle require much water and as riparian and freshwater habitat makes up few acres of the Refuge, it is important that steps be taken to protect this habitat.

Any possible impacts to cultural resources while conducting these rehabilitation recommendations is negligible. Areas where fencing is to be repaired previously had fencing and is relatively small. No impacts to cultural resources would occur in the placement of sandbags or grass seed. Fuels reduction work would primarily be centered around the Refuges' structures and associated property. The Refuge has an annual grassland composition of nearly all non-natives (90%); re-seeding will be done with a common native Bromus (as previously mentioned) that will have no detrimental effect to native stands.

## Alternative 2

Doing nothing would result in cattle encroaching and harming resources, loss of road improvements, and no lessening of future wildfire danger to person and property.

## V. Summary of Anticipated Resource Needs and Costs

### A. Erosion Reduction of the Dozer Line

#### Cost Analysis

##### Materials:

Seed (25 bags at	\$1,750.00
Sand Bags (100 ba	\$ 60.00
Sand (1, 0 0 lbs.)	\$ 13.00

##### Labor:

Seed scattering (1 week GS-05)	\$474.80
Sandbagging (1 week GS-05)	\$474.80

### B. Fuels Reduction and Fence Repair

#### Cost Analysis

##### Materials: (for 1/4 mile of fencing)

T-postsevery 10 feet)	\$343.20
Fencing wire (4 heavy gauge &39.99 each)	\$159.96
Lodge post (\$6.19 every 100 feet)	\$82.00

##### Labor:

Fuels reducing (3 months/2 seansons GS-04)	\$9,408.00
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Total Rehabilitation Cost	\$12,765.76
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